

**REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed July 26, 2005 (Paper No. 200507018). Upon entry of this response, claims 1-5, 12-14, and 18-29 are pending in the application. In this response, claims 1, 3-5, 12-13, 18-19, and 22 have been amended, and claims 23-29 have been added. Applicants respectfully request that the amendments being filed herewith be entered and request that there be reconsideration of all pending claims.

**1. Rejection of Claim 14 under 35 U.S.C. § 112, Second Paragraph**

Claim 14 has been rejected under 35 U.S.C. §112, second paragraph, as alleged being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention. Specifically, the Office Action states that claim 14 has insufficient antecedent basis for “said communication device” on line 2. (Office Action, p. 2.) Claim 14 has been amended to recite “said MVL transmitter.” Accordingly, Applicants believe the amendment overcomes the rejection of claim 14, and request that the rejection be withdrawn.

**2. Rejection of Claims 5, 21, and 22 under 35 U.S.C. §102**

Claims 5, 21, and 22 have been rejected under §102(b) as allegedly anticipated by *Nakano et al.* (U.S. 5,479,504). Applicants respectfully submit that rejection has been overcome by the claim amendments made herein. A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983).

a. Claims 5 and 21

Applicants respectfully submit that *Nakano et al.* fails to teach, disclose or suggest at least “coupling a first amplifier between the positive differential digital signal and each tip connection in a plurality of subscriber loops” as recited in amended claims 5 and 21. *Nakano et al.* discloses several different hybrid circuits for connecting a two-pair device, such as a modem, with a one-pair telephone line. (Field of the Invention.) *Nakano et al.* specifically discloses the following:

The hybrid circuit 103 has such a structure as to output a data sending signal sent through the signal sending line 104 *to the telephone line 102* without leaking the data sending signal to the signal receiving line 105, and also as to output a data receiving signal sent through the telephone line 102 to the signal receiving line 105 without leaking the data receiving signal to the signal sending line 104.

(Col. 1, lines 30-40, emphasis added.)

There is no discussion in *Nakano et al.* of using any of the disclosed hybrid circuits with multiple telephone lines, nor is there any motivation for doing so. In contrast, the amplifiers in Applicants’ claimed invention, as defined in claims 5 and 21, couple to each connection in a plurality of subscriber loops.

For at least the reason that *Nakano et al.* fails to disclose, teach or suggest “coupling a first amplifier between the positive differential digital signal and each tip connection in a plurality of subscriber loops,” Applicants respectfully submit that *Nakano et al.* does not anticipate claims 5 and 21. Therefore, Applicants request that the rejection of claims 5 and 21 be withdrawn.

b. Claim 22

Since claim 21 is allowable, Applicants respectfully submit that claim 22 is allowable for at least the reason that it depends from an allowable claim. *In re Fine*, 837 F.2d 1071,

5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claim 22 be withdrawn.

3. Rejection of Claims 1-3, 12-14, 18, and 20 under 35 U.S.C. §103

Claims 1-3, 12-14, 18, and 20 have been rejected under §103(a) as allegedly obvious over *Nolde* (5,920,615) in view of *Yoshida et al.* (6,310,953). Applicants respectfully submit that rejection has been overcome by the claim amendments made herein. It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly, all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Claim 1

Applicants respectfully submit that amended claims 1-3, 12-14, 18, and 20 are allowable for at least the reason that the proposed combination of *Nolde* in view of *Yoshida et al.* does not disclose, teach, or suggest at least the feature of “a multiple virtual line (MVL) transmitter configured to provide signals to a plurality of subscriber loops.”

*Nolde* discloses a premises switching system “for use on a *single PSTN line* for terminating calls at a plurality or multiplicity of specified destination instruments.” *Yoshida et al.* discloses a “subscriber circuit” that provides signals to a single subscriber loop. Nor does the combination disclose an MVL transmitter, since the subscriber circuit of *Yoshida et al.* used in combination with the socket network of *Nolde* provides signals to only a single subscriber loop.

Accordingly, the proposed combination of *Nolde* in view of *Yoshida et al.* does not teach at least the “a multiple virtual line (MVL) transmitter configured to provide signals to a plurality

of subscriber loops.” Since the proposed combination does not teach at least the above-described features recited in claims 1-3, 12-14, 18, and 20, a *prima facie* case establishing an obviousness rejection has not been made. Thus, claims 1-3, 12-14, 18, and 20 are not obvious under the proposed combination of *Nolde* in view of *Yoshida et al.*, and the rejection should be withdrawn.

b. Claims 3, 12-14, 18, and 20

Since claim 1 is allowable, Applicants respectfully submit that claims 3, 12-14, 18, and 20 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claims 3, 12-14, 18, and 20 be withdrawn.

4. Rejection of Claims 4, 19, and 20 under 35 U.S.C. §103

Claims 4, 19, and 20 have been rejected under §103(a) as allegedly obvious over *Nolde et al* (5,920,614) in view of *Yoshida et al.* (6,310,953) and *Fadavi-Ardenkani et al.* (6,707,822). Since claim 1 is allowable, Applicants respectfully submit that claims 4, 19, and 20 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicants respectfully request that the rejection of claims 4, 19, and 20 be withdrawn.

5. Newly Added Claims

Applicants submit that new claims 23-29 are allowable over the cited references for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Furthermore, claim 23 is also allowable for the separate reason that the cited references do not disclose, teach, or suggest the feature of “said MVL transmitter is further configured to concurrently provide signals to said plurality of

subscriber loops.” Finally, claim 26 is also allowable for the separate reason that the cited references do not disclose, teach, or suggest the feature of “wherein said differential digital signal concurrently provides voice service to each of the subscribers.” Therefore, Applicants request the Examiner to enter and allow the above new claims.

**CONCLUSION**

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1-5, 12-14, and 18-29 be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

**THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.**

By:   
**Karen G. Hazzah, Reg. No. 48,472**

100 Galleria Parkway, NW  
Suite 1750  
Atlanta, Georgia 30339-5948  
Tel: (770) 933-9500  
Fax: (770) 951-0933